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Remarks

Claims 1-17 are pending in the application as originally filed.

Claim Objection

Regarding the objection to claim 2, the applicants wish to point out to the Examiner that while it is appropriate to use the specification to determine what applicants intend a term to mean, a positive limitation from the specification cannot be read into a claim that does not impose that limitation. See, e.g., *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure), and *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily). See also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.").

Although the Examiner has pointed to one specific limitation, the specification also states that being on "grade" is a position that indicates by appropriate receipt of the laser beam that the screed head is positioned at the correct height and orientation. See, e.g., page 20, lines 10-11. Additionally, it is common for one skilled in the art to bench a tool to a known position for establishing a desired grade, which can, for example, include the ground, a concreted ground segment, a survey's stick, a form, etc. Therefore, it would not be unreasonable to one skilled in

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the art that the term "desired grade" may also refer to the height and orientation of such a benching location which may be detected by the slope sensor. Accordingly, the applicants assert that to one skilled in the art the term "desired grade" is precise, clear, correct, and unambiguous, and need not be so limited by importing limitations from the specification into the claims unnecessarily as suggested by the Examiner. As this objection is improper for the above noted reasons, withdrawal is respectfully requested.

Rejections under §103

Claims 1 and 2 are rejected under 35 USC 103(a) as being unpatentable over Hohmann Jr. (US 5,556,226) in view of Clegg (US 4,807,131) and Burgin (US 3,816,937). Claims 3-5, 7-11 and 13-37 are rejected as being unpatentable over Hohmann Jr. in view of Clegg. Claims 6 and 12 are rejected as being unpatentable over Hohmann Jr. in view of Clegg and Heiser et al (US 4,925,340). These rejections are respectfully traversed in view of the following comments.

In order to establish a *prima facie* case of obviousness, the Examiner has the burden of showing, by reasoning or evidence, that: 1) there is some suggestion or motivation, either in the reference itself or in the knowledge available in the art, to modify that reference's teachings; 2) there is a reasonable expectation on the part of the skilled practitioner that the modification or combination has a reasonable expectation of success; and 3) the prior art reference must teach or suggest all of the claim limitations. Both the teaching or suggestion and the reasonable expectation of success must be found in the prior art and not based on an applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); see also, MPEP 2142.

In carrying this burden, the Examiner "must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious." *Ex parte Clapp*, 227 USPQ 972, 973 (PTOBPAI 1985). A rejection based on §103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. *In re Warner*, 154 USPQ 173, 178 (CCPA 1967). The Examiner may *not*, because

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he may doubt that the invention is patentable, resort to speculation, unfounded assumptions, or hindsight reconstruction to supply deficiencies in his required factual basis. *Id.*

Hohmann teaches a laser alignment system for leveling flowable material having radiant energy beam detectors mounted on opposite ends of an elongated leveling member. When one of the detectors is blocked from receiving the beam, the detector elevation signal from the unblocked detector is used to generate the adjustment for both ends of the leveling member. Laser beam detectors 51 and 53 generate signals to a controller unit. If a switching unit 91 does not detect an adjustment signal from the controller 67 or 77 for a specified interval, it determines that the associated detector 51 or 53 is blocked. In that situation, the switching unit 91 switches the adjustment signal from the controller unit associated with the unblocked detector to the solenoid valve associated with the blocked detector so that both of the solenoid valves receive the adjustment signal generated from the unblocked detector. When the switching unit 91 again detects adjustment signals from the controller unit associated with the formerly blocked detector, indicating that the detector is again detecting the laser beam, the respective adjustment signals are again directed to the associated solenoid valves. See col. 4, line 60 to col. 6, line 44.

Therefore, Hohmann teaches the use of only elevation detectors to control the position of the ends of the tool. It does not disclose or suggest either the use of "a pair of laser receivers and a gravity-base cross slope sensor" or "using the gravity-based cross slope sensor when one of the laser receivers loses reception of the elevational reference to provide a relative measurement of the interrupted laser receiver" as recited by claim 1. It does not disclose or suggest either the use of a pair of elevation receivers and a sensor for sensing slope of a screed head, or a control circuit "controlling the hydraulically movable ends of the screed head using the third signal from the sensor and one of the first and signal signals from the elevation receivers when the other of the first and second signals is not available" as recited by claims 3 and 9. It does not disclose or suggest "sensing slope of the tool along its length" and "controlling the elevational positions of the ends of the tool using the sensed position of one of the ends of the tool and the sensed

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orientation of the tool along its length from one end to the other when such positions are not both know" as recited by claim 13.

Clegg is cited for teaching a fully automated earth-working machine and method of controlling the transverse cross-slope of a leveling implement utilizing multiple sensor system. Although Clegg teaches an implement position-sensing system that utilizes two laser receivers mounted at opposite ends of the tool (col. 10, line 66- col. 11, line 2), and a cross slope sensor (35), Clegg is silent on using an alternative sensor upon losing reception by one of the laser receivers. Unlike it has been suggested by the Examiner, col. 7-11 of Clegg is completely and utterly silent on this point, and thus it appears that the Examiner has resorted to speculation, unfounded assumptions, or hindsight reconstruction to supply deficiencies in his required factual basis.

Burgin is cited for teaching gravity-based cross-slope sensors. Burgin also is silent on using an alternative sensor upon losing reception by one of the laser receivers.

Heiser et al. is cited for teaching a pendulum type cross-slope sensor. Heise et al., likewise, is silent on using an alternative sensor upon losing reception by one of the laser receivers.

Although the above teachings of Clegg and Hohmann Jr. disclose the use of a pair of laser receivers and a slope sensor for positioning a tool, and Burgin and Heiser et al, particular types of cross slope sensors, there is absolutely no teaching or suggestion in the cited art that the slope sensor may be used as an alternative sensor upon losing reception by one of the laser receivers, such as in a column block situation, to maintain the position of the tool. Accordingly, as none of the above cited reference, individually or in combination, teach or suggest all of the claim limitations, the Examiner has failed to establish a *prima facie* case of obviousness.


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The applicants respectfully request in view of the above noted deficiencies in the prior art that the obviousness rejections to independent claims 1, 3, 9 and 13, and the claims that depended therefrom, be withdrawn.

The remaining cited art is noted by the applicants, but as such art has not been applied against the claims no comments will be provided at this time.

The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,
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